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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1            Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2            "Ask CAS" for self-help around the clock
 NEWS  3  May 12    EXTEND option available in structure searching
 NEWS  4  May 12    Polymer links for the POLYLINK command completed in REGISTRY
 NEWS  5  May 27    New UPM (Update Code Maximum) field for more efficient patent
                    SDIs in CAplus
 NEWS  6  May 27    CAplus super roles and document types searchable in REGISTRY
 NEWS  7  Jun 28    Additional enzyme-catalyzed reactions added to CASREACT
 NEWS  8  Jun 28    ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,
                    and WATER from CSA now available on STN(R)
 NEWS  9  Jul 12    BEILSTEIN enhanced with new display and select options,
                    resulting in a closer connection to BABS
 NEWS 10  Jul 30    BEILSTEIN on STN workshop to be held August 24 in conjunction
                    with the 228th ACS National Meeting
 NEWS 11  AUG 02    IFIPAT/IFIUDB/IFICDB reloaded with new search and display
                    fields
 NEWS 12  AUG 02    CAplus and CA patent records enhanced with European and Japan
                    Patent Office Classifications
 NEWS 13  AUG 02    STN User Update to be held August 22 in conjunction with the
                    228th ACS National Meeting
 NEWS 14  AUG 02    The Analysis Edition of STN Express with Discover!
                    (Version 7.01 for Windows) now available
 NEWS 15  AUG 04    Pricing for the Save Answers for SciFinder Wizard within
                    STN Express with Discover! will change September 1, 2004

 NEWS EXPRESS  JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:36:01 ON 09 AUG 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 08:36:10 ON 09 AUG 2004
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Property values tagged with IC are from the ZIC/VINITI data file
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h eb c g cg b cg eb

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provided by InfoChem.

STRUCTURE FILE UPDATES:    7 AUG 2004  HIGHEST RN 723734-66-5
DICTIONARY FILE UPDATES:   7 AUG 2004  HIGHEST RN 723734-66-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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L1       STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1               STR

=> s l1
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SAMPLE SCREEN SEARCH COMPLETED -       3 TO ITERATE

100.0% PROCESSED        3 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:             3 TO      163
PROJECTED ANSWERS:                0 TO        0

L2             0 SEA SSS SAM L1

=> s l1 full
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DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
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100.0% PROCESSED       67 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

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L4               STR
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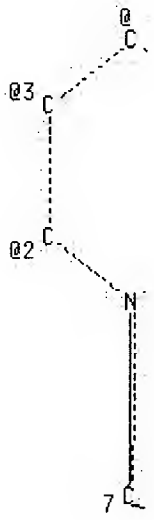

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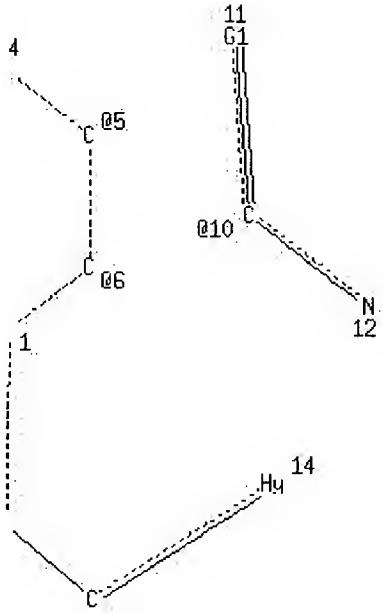

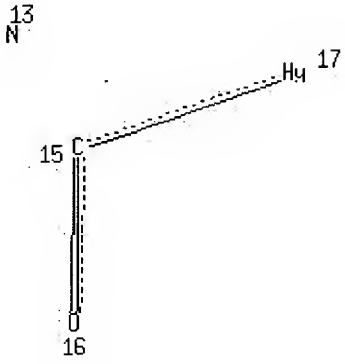

Page 1-B

Page 2-B
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NSPEC   IS R      AT   4
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GGCAT   IS UNS  AT  14
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E4 C  E1 S  AT  14

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE


=> s 14
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SAMPLE SCREEN SEARCH COMPLETED -     30 TO ITERATE

100.0% PROCESSED      30 ITERATIONS                              0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          272 TO      928
PROJECTED ANSWERS:               0 TO        0

L5            0 SEA SSS SAM L4

=> s 14 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 08:45:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    587 TO ITERATE

100.0% PROCESSED     587 ITERATIONS                             13 ANSWERS
SEARCH TIME: 00.00.01

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=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               316.30     316.51

FILE 'HCAPLUS' ENTERED AT 08:45:08 ON 09 AUG 2004
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h eb c g cg b cg eb

FILE COVERS 1907 - 9 Aug 2004 VOL 141 ISS 7
FILE LAST UPDATED: 8 Aug 2004 (20040808/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L7 7 L6

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L7 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:317444 HCAPLUS
DOCUMENT NUMBER: 138:343853
TITLE: Preparation of compositions containing pyridinium derivatives for cosmetic and therapeutic applications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India
SOURCE: Eur. Pat. Appl., 104 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1304101	A1	20030423	EP 2001-204295	20011112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AU 766824	B2	20031023	AU 2001-31376	20010328
AU 2001031376	A5	20021003		
JP 2003137783	A2	20030514	JP 2001-344128	20011109
CN 1411809	A	20030423	CN 2001-137440	20011112
CN 1411800	A	20030423	CN 2001-137441	20011112
BR 2001005143	A	20040713	BR 2001-5143	20011112
PRIORITY APPLN. INFO.:			IN 2001-CA605 A	20011019
			IN 2001-CA620 A	20011101

OTHER SOURCE(S): MARPAT 138:343853

AB The invention discloses a new class of compds. particularly pyridinium derivs., which have been found to exhibit triple function of a free radical scavenger (antioxidant), AGE (advanced glycation end product)

h eb c g cg b cg eb

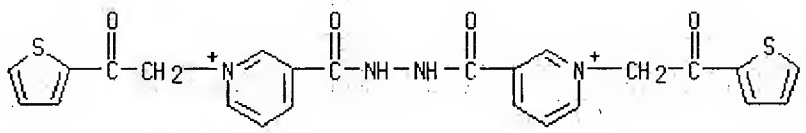
breaker and AGE inhibitor, and cosmetic compn. comprising these compds. contained in a cosmetically acceptable carrier. The invention also discloses a method of cosmetic application by applying such compns. The invention further discloses a pharmaceutical compn., comprising the compds. useful in scavenging free radicals from the body cells of a mammal, a method of scavenging free radicals from the body cells of a mammal and a method of treating of diseases caused by accumulation of free radicals in the body cells of a mammal by administering a compn. made with the compds. The invention in addn., also discloses compn. and method for inhibiting AGE in a mammal by use of the compds. of the same group. Thus, a compn. contained pyridinium compd. 0.25, oleic acid 10.0, propylene glycol 70.0, Tween-80 0.1, and EtOH qs to 100.0%.

IT **333797-95-8P**

RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of compns. contg. pyridinium derivs. for cosmetic and therapeutic applications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:118597 HCAPLUS
DOCUMENT NUMBER: 138:153445
TITLE: Preparation of N-oxoethylpyridinium compounds for the management of age-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India
SOURCE: U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of U. S. Ser. No. 801,778, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,

h eb c g cg b cg eb

MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6462057	B1	20021008	US 2000-598410		20000621
US 2001018524	A1	20010830	US 2001-801778		20010309
US 2002103228	A1	20020801	US 2001-995731		20011129
PRIORITY APPLN. INFO.:			IN 1999-CA828	A	19991006
			WO 1999-IB1683	A2	19991015
			US 2000-598410	A2	20000621
			US 2001-801778	B2	20010309
			IN 1999-CA827	A	19991006
			WO 1999-IB1687	A1	19991015
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OTHER SOURCE(S): MARPAT 138:153445
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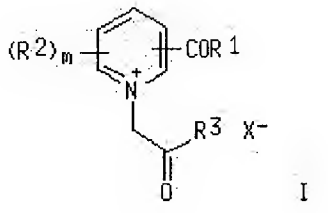

I

AB Title compds. [I; R1 = R4R5, NR7NR7R9; R2 = F, Cl, Br, iodo, acyl, CONR7R10, CO2R7, NR7R10, SR7, etc.; R3 = R7, OR7, NR7R10, N:CR7R10, etc.; R4 = NR7R6O, NR7R6NR7, OR6O, OR6NR7; R6 = alkyl; R5 = alkyl aryl, heteroaryl, COR7, SO2R7, CSNHR7, C(NH)NHR7, COR10, etc.; R7 = H, alkyl, aryl, heteroaryl; R9 = H, alkyl, aryl, heteroaryl, COR10, SO2R10, etc.; R10 = H, alkyl, aryl, heteroaryl; X = halide, OAc, ClO4, BF4, PF6, etc.; m = 0-2; with provisos], were prepd. Thus, N,N'-bis(nicotinyl)hydrazine and phenacyl bromide were refluxed 6 h in MeOH/iPrOH to give 60% N,N'-bis[3-carbonyl-1-(2-phenyl-2-oxoethyl)pyridinium]hydrazine dibromide. Tested I gave 13-92.64% advanced glycation end product (AGE) breaking at 1-50 mM. Novel compds. of the pyridinium series useful for the management of diabetes and aging-related vascular and neurovascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, inflammatory disorders, immunol. disorders, oxidative stress, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, of the general formula I, or pharmaceutically acceptable salts thereof, wherein, R1, R2, R3, X and m are as defined in the specification.

IT **333797-95-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(claimed compd.; prepn. of N-oxoethylpyridinium compds. for the management of age-related and diabetic vascular complications)

RN 333797-95-8 HCAPLUS
CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)

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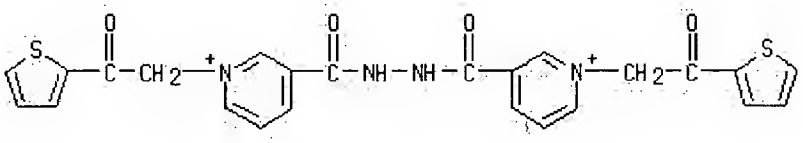

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L7 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2002:770131 HCAPLUS
DOCUMENT NUMBER: 137:279097
TITLE: Preparation of novel pyridinium compounds for the management of aging-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals, Ltd., India
SOURCE: U.S., 10 pp., Cont.-in-part of WO 2001 25,208.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6462057	B1	20021008	US 2000-598410	20000621
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001018524	A1	20010830	US 2001-801778	20010309
US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
US 2002103228	A1	20020801	US 2001-995731	20011129
US 2003092744	A1	20030515	US 2002-214704	20020809
US 6624178	B2	20030923		

PRIORITY APPLN. INFO.:		
IN 1999-CA828	A	19991006
WO 1999-IB1683	A2	19991015
IN 1999-CA827	A	19991006
WO 1999-IB1687	A1	19991015
US 2000-590143	A2	20000609
US 2000-598410	A2	20000621
US 2001-801778	B2	20010309
US 2001-939702	A1	20010828

OTHER SOURCE(S): MARPAT 137:279097
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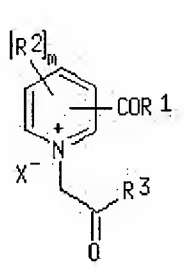

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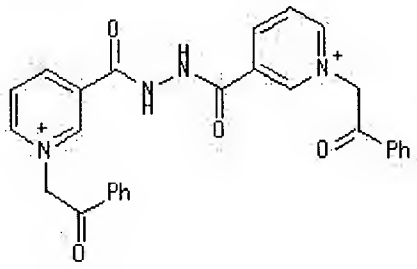


II

AB The title compds. [I; R1 = (un)substituted hydrazino, 2-benzyloxyethoxy, 2-benzyloxyethylamino, etc.; R2 = halo, NO2, alkyl, etc.; R3 = 2-thienyl, phenylamino, Ph, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2; with the provisos], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. and formulated. Thus, reacting N,N'-bis-(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II.2Br- which showed 13% AGE breakage at 5 mM. Also disclosed is a method of treatment of a diabetic patient by administering the compds. as defined above, either singly or in combination with drugs for antidiabetic therapy.

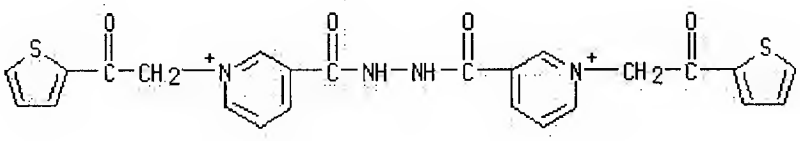
IT **333797-95-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel pyridinium compds. for treating diseases caused by diabetes and aging related complications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



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102 (a)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Cited References

ACCESSION NUMBER: 2002:733981 HCAPLUS
DOCUMENT NUMBER: 137:247608
TITLE: Preparation of pyridinium compounds useful for the treatment of advanced glycation end product (AGE)-related diseases
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India
SOURCE: Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1243581	A1	20020925	EP 2001-201057	20010321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002275158	A2	20020925	JP 2001-81819	20010322
CN 1377880	A	20021106	CN 2001-112413	20010330
PRIORITY APPLN. INFO.:			EP 2001-201057 A	20010321

AB Disclosed are novel pyridinium compds. useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth. Thus, N-benzenesulfonylisonicotinic hydrazide and EtO2CCH2Br were refluxed 24 h in Me2CHOH to give 60% 1-(2-ethoxy-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium bromide. Title compds. showed 14-95.36% AGE-breaking activity at 1-25 mM.

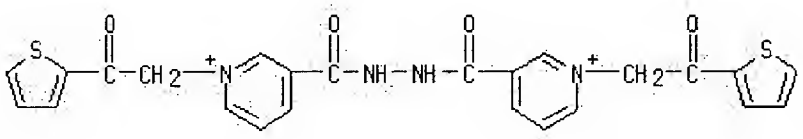
IT **357625-39-9P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compd.; prepn. of pyridinium compds. useful for treatment of advanced glycation end product (AGE)-related diseases)

RN 357625-39-9 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dichloride (9CI) (CA INDEX NAME)



2 Cl⁻

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2002:727098 HCAPLUS
DOCUMENT NUMBER: 137:247606
TITLE: Preparation of oxoethylpyridinium halides having AGE breaking activity for treatment of senile disease and complication of diabetes
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Trent Pharmaceuticals Limited., India
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002275158	A2	20020925	JP 2001-81819	20010322
EP 1243581	A1	20020925	EP 2001-201057	20010321

h eb c g cg b cg eb

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: EP 2001-201057 A 20010321

OTHER SOURCE(S): MARPAT 137:247606

AB N,N'-bis[3-carbonyl-1-(2-thien-2'-yl-2-oxoethyl)pyridinium]hydrazine dichloride, N,N'-bis[3-carbonyl-1-(2-cyclopropylamino-2-oxoethyl)pyridinium]hydrazine dichloride, 1-(2-phenylamino-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium chloride or its pharmaceutically acceptable salt, 1-[2-(2',4'-dichlorophenyl)-2-oxoethyl]-3-[2-(methoxy)ethyloxycarbonyl]pyridinium bromide or its pharmaceutically acceptable salt, 1-(2-phenylamino-2-oxoethyl)-3-[(benzoyloxy)ethylaminocarbonyl]pyridinium chloride or its pharmaceutically acceptable salt, and other oxoethylpyridinium halides are prepd. The compds. are useful for treatment of senile disease and complication of diabetes as renal disease, nerve damage, retinopathy, atherosclerosis, microangiopathy, endodermis function disorder, and teeth discoloration. N-(benzenesulfonyl)isonicotinic acid hydrazide (1.0 g) was treated with 0.6 g Et bromoacetate in iso-PrOH under reflux for 24 h to give 1.05 g 1-(2-ethoxy-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium bromide. The compds. showed good breaking activity. at 1-20 mM concn.

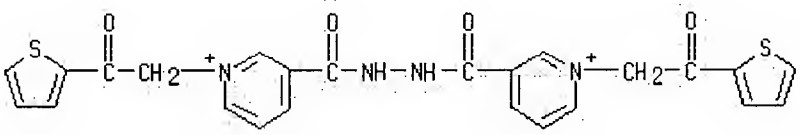
IT **333797-95-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of oxoethylpyridinium halides having AGE breaking activity for treatment of senile disease and complication of diabetes)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



2 Br^-

L7 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:643433 HCAPLUS

DOCUMENT NUMBER: 135:210943

TITLE: Preparation of novel pyridinium compounds for the management of aging-related and diabetic vascular complications

INVENTOR(S): Sankaranarayanan, Alangudi

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 598,410.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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US 2001018524	A1	20010830	US 2001-801778	20010309
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
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US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
US 2002103228	A1	20020801	US 2001-995731	20011129
PRIORITY APPLN. INFO.:			IN 1999-CA828	A 19991006
			WO 1999-IB1683	A2 19991015
			US 2000-598410	A2 20000621
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			WO 1999-IB1687	A1 19991015
			US 2000-590143	A2 20000609
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OTHER SOURCE(S): MARPAT 135:210943

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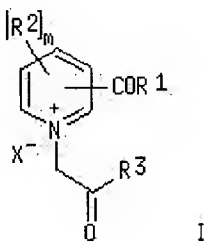

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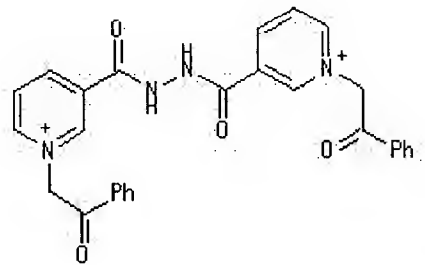


II

AB The title compds. [I; R1 = (un)substituted hydrazino, 2-benzyloxyethoxy, 2-benzyloxyethylamino, etc.; R2 = halo, NO2, alkyl, etc.; R3 = 2-thienyl, phenylamino, Ph, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. Thus, reacting N,N'-bis-(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II.2Br- which showed 13% AGE breakage at 5 mM. Also disclosed is a method of treatment of a diabetic patient by administering the compds. as defined above, either singly or in combination with drugs for antidiabetic therapy.

IT **333797-95-8P**

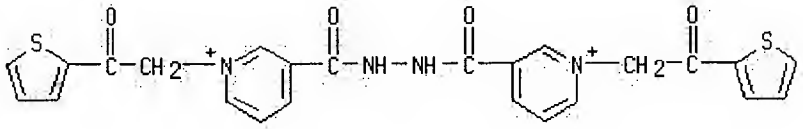
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel pyridinium compds. for the management of aging-related and diabetic vascular complications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-,

dibromide (9CI) (CA INDEX NAME)



2 Br^-

L7 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2001:265392 HCAPLUS
DOCUMENT NUMBER: 134:280715
TITLE: Preparation of novel pyridinium derivatives for the management of aging-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): India
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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BR 9913746	A	20020423	BR 1999-13746	19991015
EP 1222171	A1	20020717	EP 1999-973986	19991015
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US 2001018524	A1	20010830	US 2001-801778	20010309
US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
US 2002103228	A1	20020801	US 2001-995731	20011129
US 2003092744	A1	20030515	US 2002-214704	20020809
US 6624178	B2	20030923		

h eb c g cg b cg eb

PRIORITY APPLN. INFO.:

IN 1999-CA828	A	19991006
IN 1999-CA827	A	19991006
WO 1999-IB1683	W	19991015
WO 1999-IB1687	A1	19991015
US 2000-590143	A2	20000609
US 2000-598410	A2	20000621
US 2001-801778	B2	20010309
US 2001-939702	A1	20010828

OTHER SOURCE(S): MARPAT 134:280715

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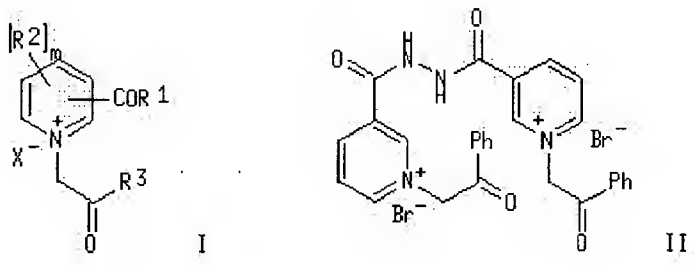


I II

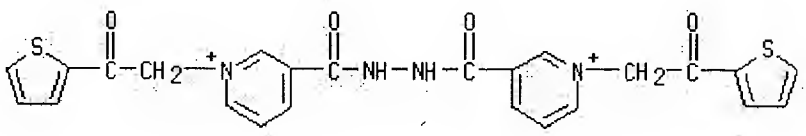
AB The title compds. [I; R1 = R4R5, NR7NR7R9; R2 = F, Cl, Br, etc.; R3 = R7, OR7, etc.; R4 = NR7R6O, NR7R6NR7, OR6O, etc.; R5 = alkyl, aryl, heteroaryl, etc.; R6 = alkyl; R7 = H, alkyl, aryl, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. and formulated. Thus, reacting N,N'-bis(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II which showed 13% AGE breakage at 5 mM. The invention further discloses a method of treatment of a diabetic patient by administering the compds. I, either singly or in combination with drugs for antidiabetic therapy.

IT **333797-95-8P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of pyridinium derivs. for the management of aging-related and diabetic vascular complications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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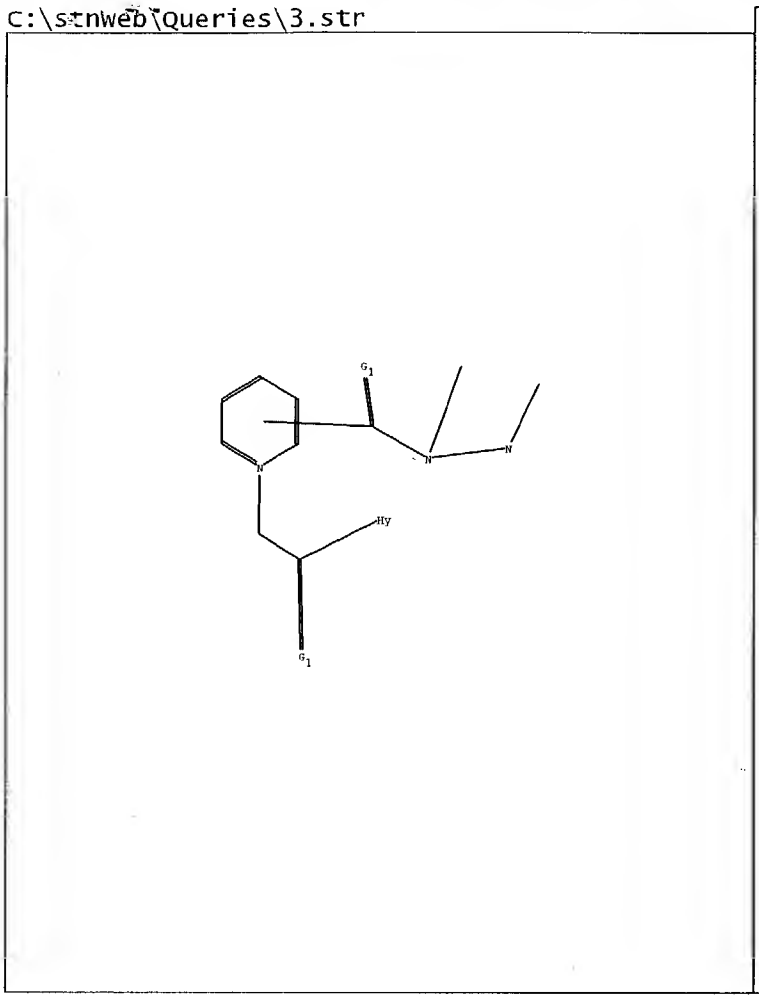

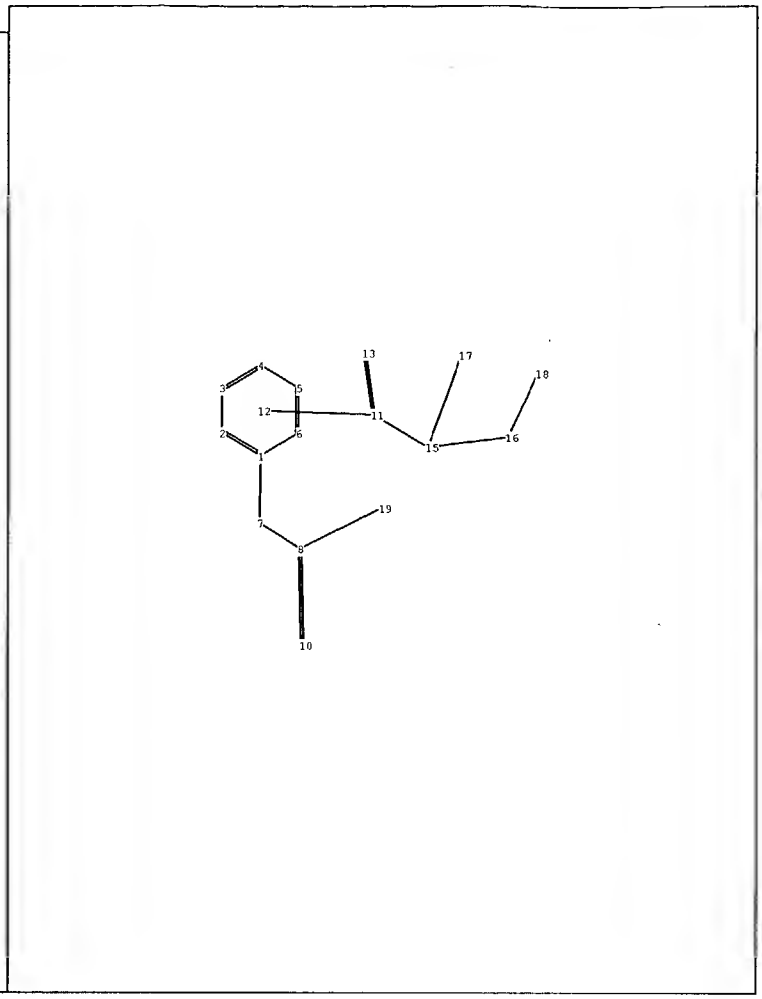

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ring nodes :
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ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 15-16 15-17
exact/norm bonds :
1-7 8-10 8-19 11-13 11-15 15-16 15-17 16-18
exact bonds :
7-8
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 :

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 10:CLASS 11:CLASS
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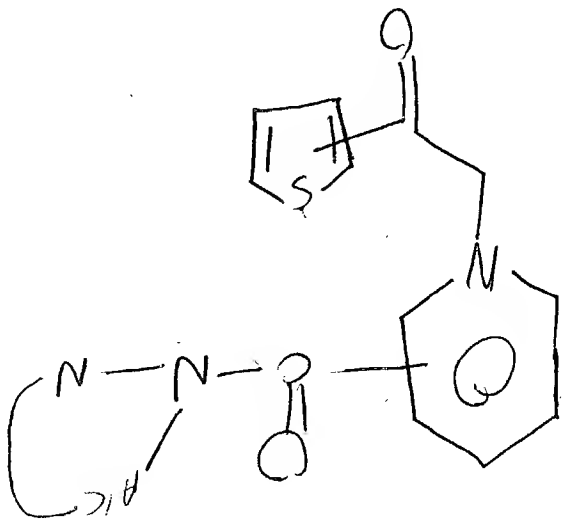
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O
O
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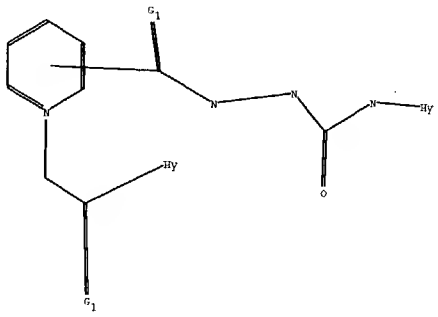

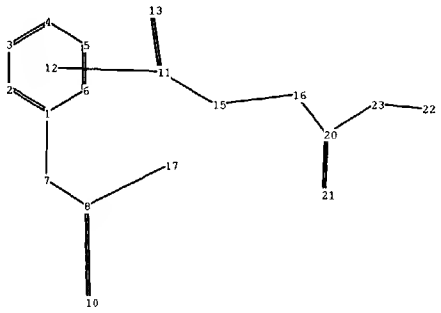

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ring bonds :
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exact bonds :
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    containing 1 :


G1:O,S

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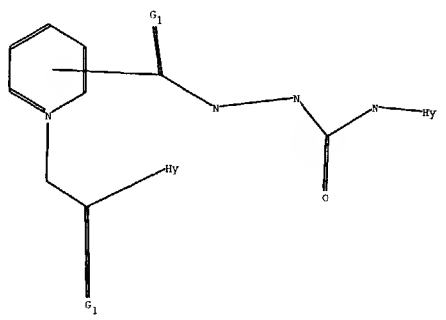

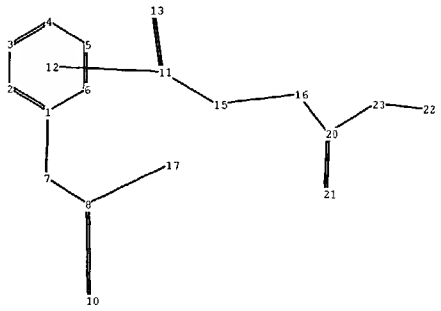

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ring nodes :
1 2 3 4 5 6
ring/chain nodes :
15 16 20
chain bonds :
1-7 7-8 8-10 8-17 11-13 11-15 20-21 20-23 22-23
ring/chain bonds :
15-16 16-20
ring bonds :
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exact/norm bonds :
1-7 8-10 8-17 11-13 11-15 15-16 16-20 20-21 20-23 22-23
exact bonds :
7-8
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 :

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 10:CLASS 11:CLASS
12:CLASS 13:CLASS 15:Atom 16:Atom 17:Atom 20:CLASS 21:CLASS 22:Atom 23:CLASS
Generic attributes :
17:
Saturation : Unsaturated

Element Count :
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S,S1

C,C4